

REMARKS

The Examiner's action of April 3, 2009 is noted in which the claims are objected to based on the terminology "E-field" and in which the claims are rejected under 35USC102 as being anticipated by Hilliard et al.

Applicant has changed the terminology "E-field" to "electric field" in all instances of the claims, thereby obviating objections to the claims.

With respect to the 35USC102 rejection as being anticipated by Hilliard et al., there is a fundamental difference between the Hillard et al. system and the claimed system. Hilliard et al. describes detecting "the electromagnetic field" from a missile, whereas Applicant claims detecting the electric field.

Hilliard et al. describes the electromagnetic field as being emitted from a target, and in fact assumes an active radar on a missile which does in fact emit electromagnetic waves. An electromagnetic wave is defined as a magnetic field produced by an electric charge in motion, whereas an electric field is just that, static. There is no moving electric charge and hence no magnetism.

The claimed system operates on the finding that the movement of a projectile or missile through a naturally occurring electric field charges the local electric field. This disturbance is what is sensed.

Thus, the disturbance of a naturally occurring electric field by an incoming projectile is sensed and not the active emissions from a missile radar. Thus it is impossible for the Hilliard et al. reference to anticipate the claimed invention.

Moreover, it is not at all clear that the Luneberg lens system can detect pure electric fields or that the photonic sensor used by Hilliard et al. can detect pure electric fields. This being the case, none of the rejections involving Hilliard et al., whether they be rejections of Claim 1 or the other claims, will lie because Hilliard et al. are simply measuring something fundamentally different from what is claimed.

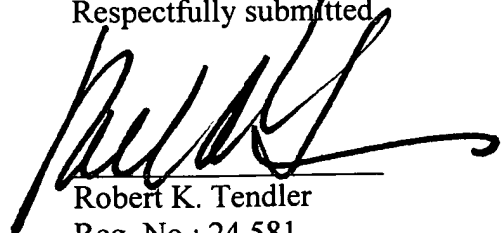
While detected electromagnetic fields have been around for a long time, it is only recently that it was discovered that it was possible to detect E-fields varied by the passage of a projectile. This is nowhere shown or taught in the art cited.

Moreover, Applicant takes note that the Examiner has been apprised of Related Applications and is therefore under a duty to take into account all of the information relating to these applications, including the applications themselves, the Office Actions pertaining to these applications, the art cited in these applications and Applicant's responses. An IDS listing these applications accompanies this amendment.

Allowance of the claims and issuance of the case is earnestly solicited.

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Respectfully submitted



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